

out the British Empire; and to the work which her *alumni* have done, and are doing, in science both pure and applied.

It might be profitable also to dwell on her defects, which she has in plenty, like other institutions guided by human brains, and endowed with her own share of human inertia. But, as she has no want of candid critics, and is by and by to be put into the refining crucible, along with the other Scottish Universities, to emerge, let us hope, purified and strengthened, we may content ourselves with offering her, and asking of readers to join us therein, a hearty wish that she may prosper during the next hundred years as she has done during the present century.

G. CHRYSTAL

THE CONGO¹

ALTHOUGH claiming to be little more than the record of a passing visit paid to the Lower Congo Basin towards the end of the year 1882, this is really a work of permanent interest to the naturalist and ethnologist. The author, a young and ardent student of biology in its widest sense, here conveys his impressions of

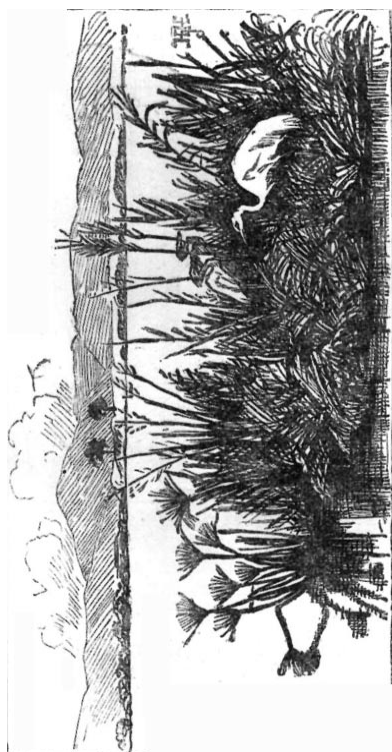


FIG. 1.—Floating Reed Island on Stanley Pool.

West African life and scenery in a series of graphic pictures, which owe much of their freshness and vigour to the circumstance that they are always drawn at first hand from nature, and are often an exact reproduction of jottings made with pen and brush in the midst of the scenes described. His skill as a draughtsman he turns to good account by illustrating the text with numerous drawings of plants, animals, and human types, many of which are absolute fac-similes executed by the Typographic Etching Company.

But Mr. Johnston does much more than merely describe in striking language the varied aspects of tropical nature revealed to his wondering gaze as he ascended from the low-lying marshy coastlands along the great

¹ "The River Congo, from its Mouth to Bôlobo," by H. H. Johnston, F.Z.S. (Sampson Low, 1884.)

artery from terrace to terrace to the grassy steppes and park-like uplands of the interior. Informed by the quickening influences of the new philosophy now accepted by all intelligent students of nature, he compares as he describes, carefully observes, and in apparently trifling incidents endlessly recurring throughout long ages he discovers the causes of mighty revolutions in the organic world. In Stanley Pool and elsewhere on the Congo he meets with numerous floating islands, tangled masses of aquatic vegetation, firmly matted together by their roots and fibres, and strong enough to bear the



FIG. 2.—*Lissochilus gigantens*.

weight of a man (see Fig. 1). These, like the huge snags and trunks of trees borne along by the swift current, are thickly peopled with all forms of animal and vegetable life, which are thus carried a long way from their original homes. Hence the inference that "on many rivers these floating trees must serve as a great means for the diffusion of species" (p. 283). So also in his recent work on the "Indians of British Guiana," Mr. Im Thurn notices the presence of turtles on the logs and stems swept down the rivers of that region.

Another inference is that the Congo cannot possibly form a true parting-line or natural boundary in the distribution of the West African flora and fauna. "I have read in many works on Africa that the Congo was the southern boundary of the habitat of the gray parrot, the anthropoid apes, and the oil-palm (*Elaeis guineensis*). Now the gray parrot reaches, perhaps, its great development in Malanje, a district of Angola nearly 300 miles south of the Congo, and, together with the oil palm, continues to be found as far as the tenth degree south of the equator, while the anthropoid apes can hardly be said to be limited southward in their distribution by the lower course of the Congo, for they do not reach even to its northern bank, or approach it nearer than Landana, 100 miles away. . . . There are, besides, many West African plants which stretch right away from the Gambia, across the Congo, into Angola on the south. In short, I have never seen any difference between the fauna and flora of the northern and southern banks of this great river; nor do I believe that it acts in any way as a limitation in the range of species" (p. 318).

On another point also our explorer differs from some distinguished botanists, who hold that tropical vegetation is inferior in brightness and fragrance to that of the temperate zone. "Although the Congo offers nothing, as we yet know, that is unique as genus or family, yet probably nowhere in Africa are there such magnificent displays of colour formed by the conspicuous flowering trees and plants. Here, at any rate, no one can maintain that the temperate zone can offer anything equal in the way of flower-shows. Many of the blossoms also exhale strong odours, sometimes very offensive, but also in many cases fragrant and delicious. Few perfumes are more pleasing than the clove-like smell of the *Camoensia* or the balmy scent of the *Baphias*" (p. 324).

His botanical descriptions and sketches are generally admirable, as, for instance, of the *Lissochilus giganteus* (see Fig. 2), "a splendid orchid that shoots up often to the height of six feet from the ground, bearing such a head of red-mauve, golden-centred blossoms as scarcely any flower in the world can equal for beauty and delicacy of form. These orchids, with their light-green, spear-like



FIG. 3.—1, Mu-yansi; 2, Mu-téké; 3, Mu-shi-Kongo.

leaves, and their tall swaying flower-stalks, grow in groups of forty or fifty together, often reflected in the shallow pools of stagnant water round their bases, and filling up the foreground of the high purple-green forest with a blaze of tender peach-like colour, upon which no European could gaze unmoved" (p. 35).

There is a deeply interesting chapter on the "People of the Congo," who, with the doubtful exception of some dwarfish or Bushman tribes, are all grouped in "that great Bantu family which, when seen in its purest exemplars, the Ova-héréro and Ova-mpo of the south-west, the tribes of the Zambesi, the people of the great lakes of Tanganyika and Nyassa, and the western shores of Victoria Nyanza, and finally of the Upper Congo, is so distinct, physically and linguistically, from the divers Negro, Negroid, and Hamitic populations to the north of it, and from the Hottentot-Bushman group to the south" (p. 396). Here we find the Bantus as a race distinguished by a good observer, not only from the Hottentots, Hamites, and Negroes proper, but even from the surrounding Negroid populations. Further on the Bantus

themselves are said to vary considerably in physical appearance, a statement fully borne out by the accompanying typical heads of a Mu-yansi, a Mu-téké, and a Mu-shi-Kongo (see Fig. 3). "The Congo tribes," we are told, "on nearing the coast, begin to lose their distinctive Bantu character, either through the degradation the coast climate seems to entail, or because on their migration westward from the north-east Bantu focus, they originally met and mixed with, in the low-lying coast-lands, an earlier Negro population. This latter supposition sometimes strikes me as being the true one, for the reason that, in such a littoral tribe as the Kabinda or Loango people, there are distinctly two types of race. One—the Bantu—a fine, tall, upright man, with delicately small hands, and well-shaped feet, a fine face, high thin nose, beard, moustache, and a plentiful crop of hair; the other an ill-shaped loosely-made figure, with splay feet, high calves, a retreating chin, blubber lips, no hair about the face, and the wool on his head close and crisply curled. The farther you go into the interior the finer the type becomes, and two points about them contrast very

favourably with most of the coast races, namely, their lighter colour—generally a warm chocolate—and their freedom from that offensive smell which is supposed, wrongly, to characterise most Africans" (p. 397).

In this instructive passage all the facts are stated with tolerable accuracy. Yet the general inference cannot be accepted. There is, strictly speaking, no Bantu type at all, and the expression, correct in a linguistic sense, has no definite anthropological meaning. But for the fact that most of the peoples occupying the southern half of the continent speak dialects of a common mother-tongue, no ethnologist would ever have thought of grouping them together as forming a separate branch of mankind. Physically they must be regarded as distinctly Negroid, that is, an essentially mixed race presenting every possible shade of transition from the true Negro of Sudan and the West Coast to the true Hamite of the north-east coast. Between these two extremes they oscillate in endless variety, presenting nowhere any stable type distinct from either, and bound together only by the single element of their common Bantu speech. On the other hand, this Bantu speech itself is not Hamitic, but Negro, as clearly shown by the absence of grammatical gender. There appears to be also present a more or less distinct substratum of Negro blood in all the Bantu-speaking tribes, from the Mpongwés of the Gaboon to the Ama-Khosas of the extreme south-east, and from the Wa-Swahili on the East to the Ba-Congo on the West Coast. Hence these peoples should apparently be regarded rather as Negroes affected by Hamitic than as Hamites affected by Negro elements. In other words they are Negroid rather than Hamitoid.

The spread of a single organic speech of an extremely delicate structure over such a vast area, unaided by the prestige of letters, or by far-reaching political influences, is certainly a surprising phenomenon. But it is not without its analogues in other quarters of the globe, where we find an equal and even wider diffusion, for instance, of the Malayo-Polynesian, Ural-Altaic, Aryan, Athabascan, and Guarani-Tupi forms of speech, also before the rise of literatures and great empires. And as no sound anthropologist regards the Aryan or the Malayo-Polynesian-speaking peoples as belonging to one physical type, neither can they regard the Bantu-speaking tribes as constituting a single ethnical group. All these terms, Aryan, Malayo-Polynesian, Bantu, are essentially linguistic, and as such have a definite meaning. Ethnologically they have little or no scientific value. It is noteworthy that, when not advocating theories, Mr. Johnston himself speaks of the Bantus of the Congo Basin as Negroes. Thus at p. 298, where he contrasts them unfavourably with the half-caste Wa-Swahili of Zanzibar, he writes:—"The mixture of Arab blood and Arab culture gives a stability and manliness to the Wa-Swahili which is lacking even in the finest race of pure Negro origin. The Congo peoples, for instance, are usually amiable and soft-mannered, but at heart they are seldom to be depended on. There is something so eminently childish in the Negro's character. . . . All these traits are found in the black races of Africa that are of purely Negro or Bantu stock; but in the Semiticised people of Zanzibar you find men of thought and reflection, whom you may use as counsellors and confidants; men who are really capable of zealous service, of disinterested affection, and to whom gratitude is a concept neither foreign to their intelligence nor their tongue." This is true and well put, and is the common experience of all travellers who have had dealings with the natives of South Central Africa. It shows at the same time that "even the finest" Bantu peoples must ultimately be affiliated to the Negro stock.

Besides the numerous illustrations, two useful maps and a copious index, this handsome volume is furnished with comparative linguistic tables of the chief Bantu

languages current in the Congo basin, as well as full lists of the plants, birds, and mammals occurring in the same region.

A. H. KEANE

NOTES

EUROPEAN science has sustained a terrible loss during the past week. Monsieur Dumas, the venerable Perpetual Secretary of the French Academy of Sciences, died at Cannes on the 11th inst. at exactly the age of the century. Old as the great chemist was, his death will be felt as a real and serious loss to French science, for up to the last he took an active interest in all its doings. We gave in vol. xxi. so full a biography from the masterly pen of Prof. Hofmann of Berlin, that it is unnecessary to go over the ground again. We may, however, attempt in a future number to appreciate to some extent the position of Dumas in the chemistry of the past sixty years. The funeral took place at Mont Parnasse Cemetery on Tuesday, when MM. Bertrand, D'Haussonville, and others delivered addresses at the grave. The sitting of the French Academy of Sciences on Monday was postponed after the reading of an address by M. Rolland, the president, who praised M. Dumas for the talent and impartiality he exhibited as Perpetual Secretary of the Academy.

THE Museums of Economic Botany at Kew are second in importance to none in the world, and, except perhaps as to the size and splendour of the buildings, they are in every way worthy of a nation which has trade relations with every part of the globe. The foundation of these museums was laid by Sir W. J. Hooker in 1847, when he obtained leave to fit up an old fruit store with cases suitable for the exhibition of important vegetable products. Ten years later the house now known as Museum No. 1 was opened to the public, and in 1881 this was added to and the approaches greatly improved. It will be remembered that these buildings were not originally designed for museum purposes, and yet such is the arrangement of the cases and so well are the objects displayed and illuminated that we know of no museum built for the purpose that we would prefer to No. 1 Museum at Kew. The collections are contained in Museum No. 1, which is directly opposite the Palm House, on the other side of the Ornamental Water, in Museum No. 2, which is close to No. 1, at the northern end of the Herbaceous Garden, while Museum No. 3 occupies the old Orangery. At the north end of the Broad Walk the last Museum contains specimens of large timber, while the monocotyledons and flowerless plants are arranged in No. 2, and the dicotyledons in No. 1 Museum. An official guide to the contents of the latter Museum has just been published. As nearly every object exhibited is fully labelled, this guide-book does not enumerate a tithe of these, but a certain number of important objects are marked with a conspicuous number, and these numbers are referred to in the catalogue. In the 130 pages of this guide there is compressed a vast amount of information, a great deal of which is easily understood, even apart from the interesting collection on which it is founded; and if the student, as he walks through the Gardens, is struck at the beauty of the vegetable kingdom, he will, as he studies the products of that kingdom within these museum walls, be more struck at the extreme indebtedness of mankind to this kingdom for the necessities and luxuries of life.

WE regret to learn that Sir Sidney Smith Saunders, C.M.G., for many years British Consul in various Mediterranean ports, and a distinguished entomologist, died suddenly on Tuesday evening (15th) at an advanced age. He was one of the original members of the Entomological Society of London, and was a vice-president of the Society at the time of his death. He devoted special attention to the singular bee-parasites known as *Stylopidae*.